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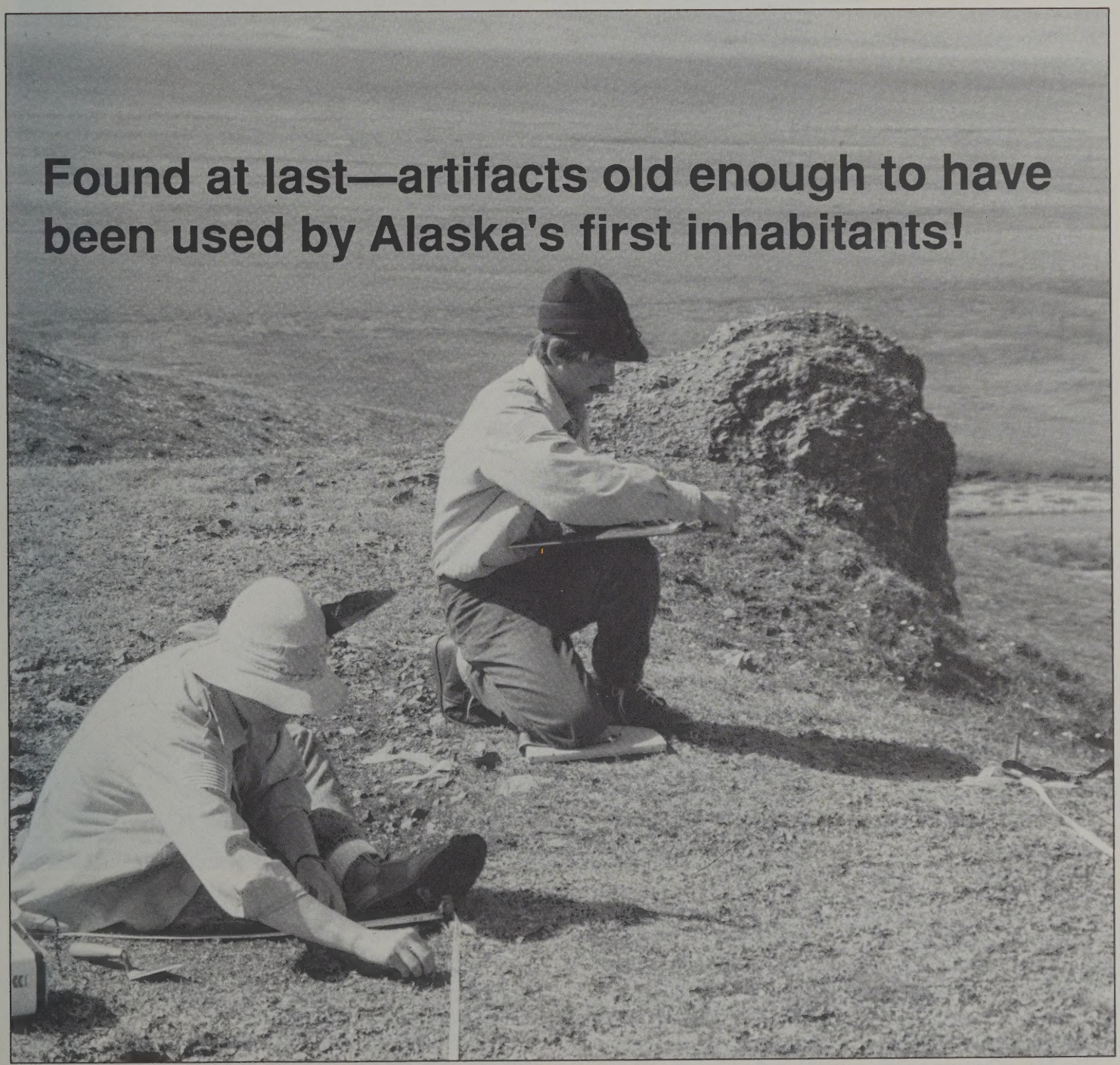
blm - alaska

frontiers

managing public lands for multiple use

Issue 40 January 1993

Found at last—artifacts old enough to have been used by Alaska's first inhabitants!



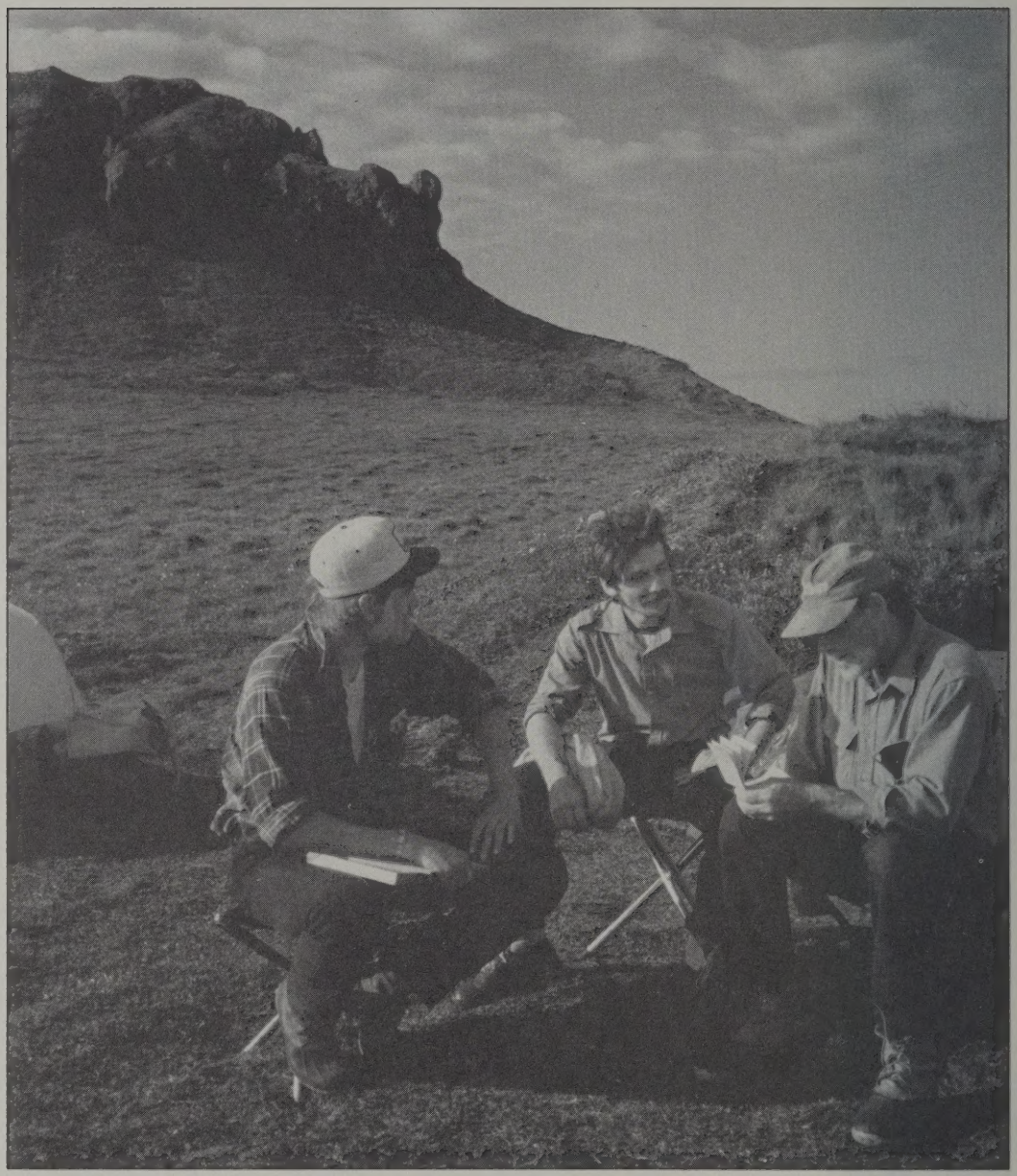
Dan Gullickson

BLM volunteer Susan Reanier examines the ground for artifacts and flakes while Russian archaeologist Sergei Slobodin records.

u.s. department of the interior • bureau of land management

Mesa site yields world-class find

Artifacts so old they may have been left by the people who crossed the land bridge into Alaska



Dan Gullickson

Archaeologists Richard Reanier, Sergei Slobodin and Michael Kunz discuss excavation strategies at a PaleoIndian site in northern Alaska. The 11,700-year-old site is on top of the mesa looming in the background.

A hundred and fifty miles north of the Arctic Circle, three archaeologists stood on a wind-swept mesa 200 feet above the floor of a valley hundreds of miles from the nearest village. There was little shelter against the elements, but they could see for miles in every direction. They pondered, they discussed, they conjectured. And they tried to imagine themselves moved back in time, to 11,700 years ago.

"I think we can assume that this was a lookout site, not an encampment," said Michael Kunz, BLM archaeologist. " His colleagues, Richard Reanier of the University of Washington in Seattle and Sergei Slobodin of the Russian Far East Institute of Science, nodded in agreement. Kunz based his conjecture on the fact that even though several fire hearths had been excavated at the site, only hunting implements, and fragments left from making lance heads and dart points had been unearthed.

Kunz explained, "Down in the valley we found numerous sites that were occupied by a variety of cultural groups over the last 8,000 years. We've seen the valley filled with thousands of caribou during migration time, so we surmise that hunters from the more recent cultures did not need to climb the high mesa to look for game. The Mesa Culture hunters were hunting for something different, something that may not be here today. They may have been looking for game that is now extinct, such as bison or even mammoth."

From all indications, none of the region's more recent cultures used the site, so Kunz and Reanier have named

this newly discovered group the Mesa Culture.

For Kunz, the current BLM-led excavation of the Mesa Site is an archaeologist's dream. Charcoal recovered in 1992 from a newly discovered fire hearth provided an age of 11,700 years old.

"This makes it one of the oldest sites in North America," Kunz says.

He discovered the site in the northern foothills of the Brooks Range in 1978 while doing environmental compliance work associated with oil and gas exploration activities in the National Petroleum Reserve in Alaska.

Initial work at the site in 1978-79 unearthed evidence suggesting the site belonged to the PaleoIndian group of cultures—the oldest well-documented human inhabitants of North America.

The archaeologists think that hunters, singly or in small groups, would climb to the top of the mesa to watch for game animals crossing the surrounding tundra. While on the mesa, they made and repaired the tools needed to fell the big game they hunted. More than 85 percent of the artifacts recovered from the site are stone lance or dart points or other hunting implements. Since most archaeological cultures are identified by the style of their projectile points, these are what first led Kunz to suspect that the site might represent a PaleoIndian occupation.

In the continental U.S., PaleoIndian cultures range in age from 11,200 to 8,000 years ago.

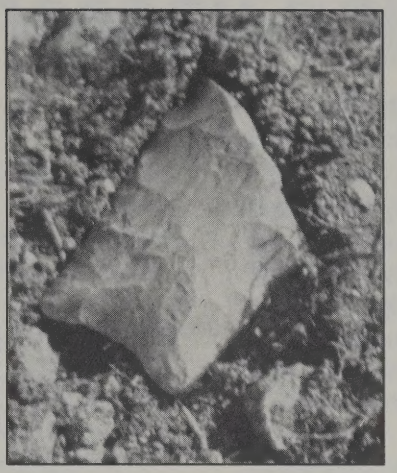
In comparison, the oldest date from the Mesa site is 11,700 years ago, possibly making it the oldest PaleoIndian site in North America. In addition, the style of the projectile points recovered from the site combines aspects of the projectile point styles of some of the oldest PaleoIndian groups.

No convincing evidence of a formal PaleoIndian site has ever been reported in Alaska prior to this discovery.

Most scientists agree that North America was originally populated by people who crossed from Siberia to Alaska via the Bering Land Bridge. It had long been a mystery, therefore, why no PaleoIndian sites had been discovered in Alaska.

In 1980 Kunz and Reanier began a testing program aimed at determining the site's size, activity areas, soil development rates, depositional mechanisms, and fossil pollen data. The analysis of this data paved the way for resuming excavations in 1989.

Their 1989 field work provided Kunz and Reanier with radiocarbon data indicating that one locality of the site was about 10,000 years old.



Dan Gullickson

Base of a broken Mesa point. The point's distinctive shape demonstrates the strong relationship to Paleo-Indian points.

Excavations at the site were continued in 1991. During that field season a fire hearth containing a broken projectile point was excavated. This occurrence established positive evidence for a direct tie between the artifacts and the charcoal that provides the date. Another hearth with associated artifacts was also excavated that summer in another area of the site. The dates provided by these two hearths corroborated the earlier 10,000-year-old date.

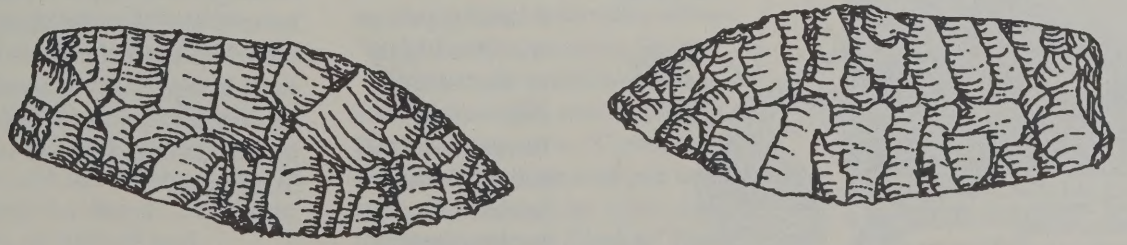
In an attempt to gain insight into a connection with Asian ancestors, the Russian archaeologist Sergei Slobodin joined the BLM effort last summer. Slobodin has worked extensively in the part of Siberia believed most likely to have produced the ancestors of the earliest Americans. At present he sees few similarities between the artifacts of the Mesa Culture and those of the cultures he has studied in the Magadan District of Siberia; however, he says much work remains to be done.

Kunz and Reanier say they are very excited about the data they have collected this summer at the Mesa. Reanier recently excavated the largest hearth ever found at the site. It yielded pieces of charcoal large enough to reveal the type of wood the ancient hunters used for fuel.

Kunz and Reanier are now analyzing their field work, waiting for the results of additional radiocarbon analysis, and compiling reports. They plan to present several papers concerning this unique site at scientific meetings early in 1993 and will also publish a preliminary site report in an archaeological journal.

Said Kunz, "Right now, this is one of the most important archaeological sites in the Arctic, if not North America."

—Sharon Durgan Wilson



These life-size sketches show the projectile points found at the Mesa site. (Drawing by Susan Will)

Tracking unseen currents

by Nolan Heath, Chief
BLM Branch of Pipeline Monitoring

What sometimes happens to buried sections of the Trans-Alaska Pipeline is a multi-million dollar question the Alyeska Pipeline Service Company and a corrosion task force of the Joint Federal-State Pipeline Office are aggressively pursuing.

The task force has just released a report highlighting specific ways of improving the monitoring of corrosion protection on the pipeline

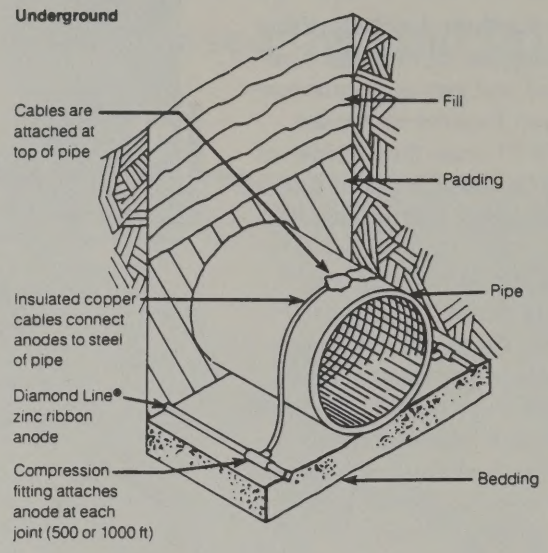
What is corrosion? How do you protect against it? How do you tell if it's happening?

Nolan Heath, BLM's chief of the branch of pipeline monitoring, says, "When anything made of metal is buried in the ground, a large number of chemical and physical forces come together to break down this 'unnatural' material manufactured by man.

"Nature wants to take it back to its natural iron-ore state. The forces of corrosion, like gravity, never forget to keep working." The primary defense against this is a protective coating on the pipe.

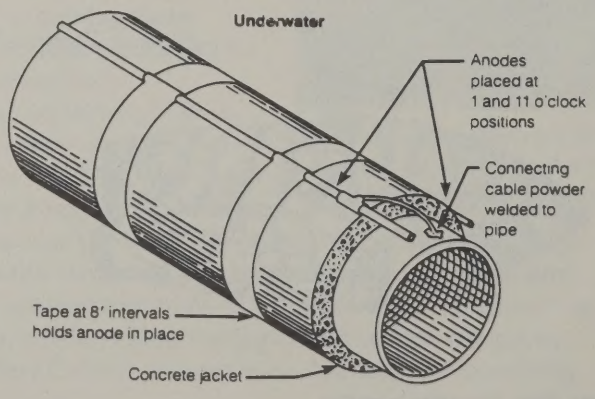
Some of the forces constantly working against buried pipelines and their coatings include oxidation (rust), pressure from rocks and ice and, most insidious and difficult to track, minute electrical (cathodic) currents in the ground.

Currents passing from the buried metal to the surrounding soil actually strip away molecules of metal, eventually corroding the metal completely. Tracking the flow of these micro-currents is particularly tricky in the extreme Arctic soil conditions encountered by the 800-mile Trans-Alaska Pipeline.


Underground
Cables are attached at top of pipe
Fill
Padding
Pipe
Insulated copper cables connect anodes to steel of pipe
Diamond Line® zinc ribbon anode
Compression fitting attaches anode at each joint (500 or 1000 ft)
Bedding

To prevent this type of electrical corrosion at pinholes in the coating, metal strips that are more chemically reactive than the steel in the pipeline are used. Strips of zinc, or more recently magnesium, are buried next to the pipe to be "sacrificed" to the current.

Believe it or not, this method works. It's called "cathodic protection," and instead of corroding the steel in the pipe, the current eats away the zinc strips. Over the years there have been technical difficulties in getting good scientific information about how the Trans-Alaska pipeline was bearing up to the various destructing forces in the 400 miles where it is buried. As a back-up safety measure required by the federal grant of right-of-way, Alyeska Pipeline Service Co. developed and used a series of increasingly sophisticated "smart pigs" to check on the soundness of the pipe.


Underwater
Anodes placed at 1 and 11 o'clock positions
Connecting cable powder welded to pipe
Tape at 8' intervals holds anode in place
Concrete jacket

A smart pig is a cylindrical tool equipped with sensors for collecting data. It travels through the pipe detecting any abnormalities in the pipe wall (and hence detecting any loss of pipe to corrosion).

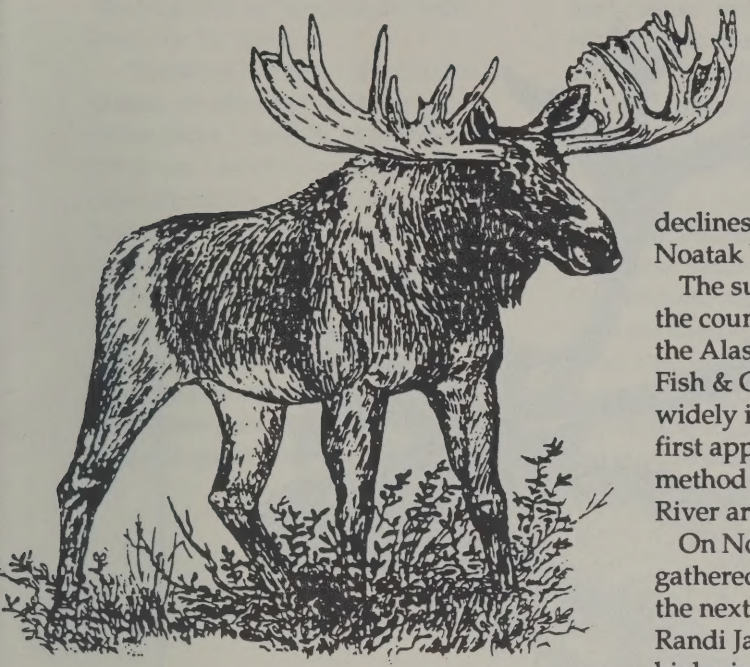
Recently Alyeska and NKK Corporation developed a more accurate pig technology using ultrasonic reflection. The new and much more sensitive smart pig, when it was first run through the pipe in 1989, revealed many hundreds of abnormalities, some of which turned out to be corrosive pitting on the exterior of the pipe.

After further investigations, Alyeska Pipeline Service Co. did a major repair of heavily corroded pipe at Atigun Pass in 1991.

Further study by the Joint Pipeline Office's corrosion task force has now resulted in five specific new requirements for the company, designed to improve its ways of monitoring the cathodic protection program for the Trans-Alaska Pipeline System.

The report also states that, "although one element of Alyeska's corrosion control program, the CP (cathodic protection) monitoring, does not meet existing regulatory requirements, the Bureau of Land Management and the State of Alaska believe that the overall corrosion control program insures the structural integrity, environmental protection, and public safety required by the grant of right-of -way and the State lease."

BLM counts moose in Squirrel River area



The small airplane banked suddenly into a steep turn 500 feet above the snow-covered ground. The brown shape below became recognizable as a moose, its rack of antlers clearly identifying it as a bull. The BLM biologist in the rear seat of the airplane carefully tallied the sighting on her map.

That scene was repeated many times recently when biologists for BLM and the Alaska Department of Fish and Game conducted a moose population survey in the Squirrel River drainage northeast of Kotzebue.

Under a cooperative agreement, BLM provided most of the operations funding and the Alaska Department of Fish and Game provided most of the personnel. The U.S. Fish and Wildlife Service also participated, providing an airplane and pilot for a day, and the Nome office of the University of Alaska's Cooperative Extension Service sent an observer for several days to help count moose.

Anne Morkill of BLM's Kobuk District was lead biologist for the project. She said the survey arose from concerns that harsh conditions in the winter of 1990-91 and increased hunting activity had caused a decline in the ratio of bulls to cows. Similar surveys had found declines in the nearby Noatak River drainages.

The survey method used in the count was developed by the Alaska Department of Fish & Game and is used widely in Alaska. One of the first applications of the method was in the Squirrel River area in 1985.

On November 3, the team gathered in Kotzebue. For the next 10 days, Morkill, Randi Jandt (also a wildlife biologist with the Kobuk District), and the state Department of Fish and Game employees counted moose from five airplanes.

A 1,440-square-mile block was targeted as the survey area and divided into 127 survey units of eight to 15 square miles each. One team of four observers flew the entire survey area at a rate of two minutes per square mile to delineate areas of high, medium and low moose density. Based on these "stratification" flights, 628 square miles were designated low moose density, 580 square miles medium density and 233 square miles high moose density.

Next, five teams of two observers returned to randomly selected units and flew over them at a rate of four to six minutes per square mile, counting bulls, cows and calf moose. Finally, two square miles within each of the surveyed units were flown at a rate of 12 minutes per square mile to determine a "sightability correction factor."

This survey established an estimate of 1,372 moose for the entire survey area. "Overall, that's a little under one moose per square mile, which is pretty good density for northwestern Alaska," Morkill said.

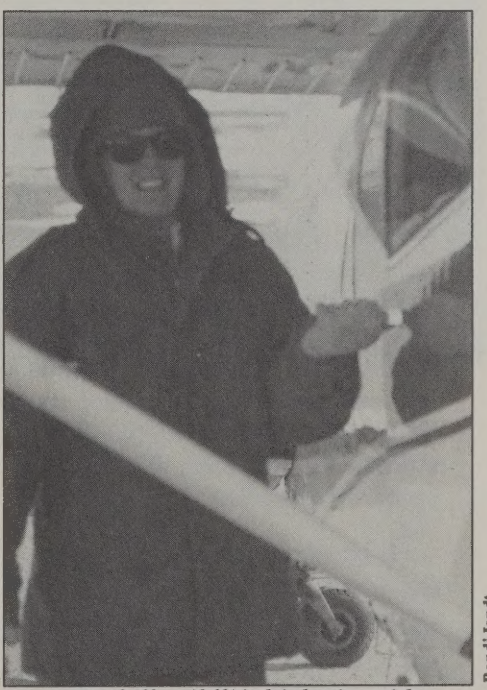
However, the bull-to-cow ratio was only 37 bulls per 100 cows. That's fewer than the 40-bulls-per-100-cows ratio established by ADF&G as a management objective for the area, and shows a decline from the mid-1980s.

The survey showed about twice as many moose as were counted in the 1985 survey of the area, but biologists have much more confidence in the accuracy of this count than the 1985 count.

"Our statistical analysis shows that the population estimate is within 23 percent plus or minus. In 1985, the factor was plus or minus 120 percent," Morkill said.

Morkill said the survey will establish baseline data to help identify habitat inventory needs and guide BLM management decisions involving subsistence resources and the issuance of special recreation permits to guides and outfitters. BLM will also incorporate it into an integrated activity plan for the Squirrel River area.

—Andy Williams

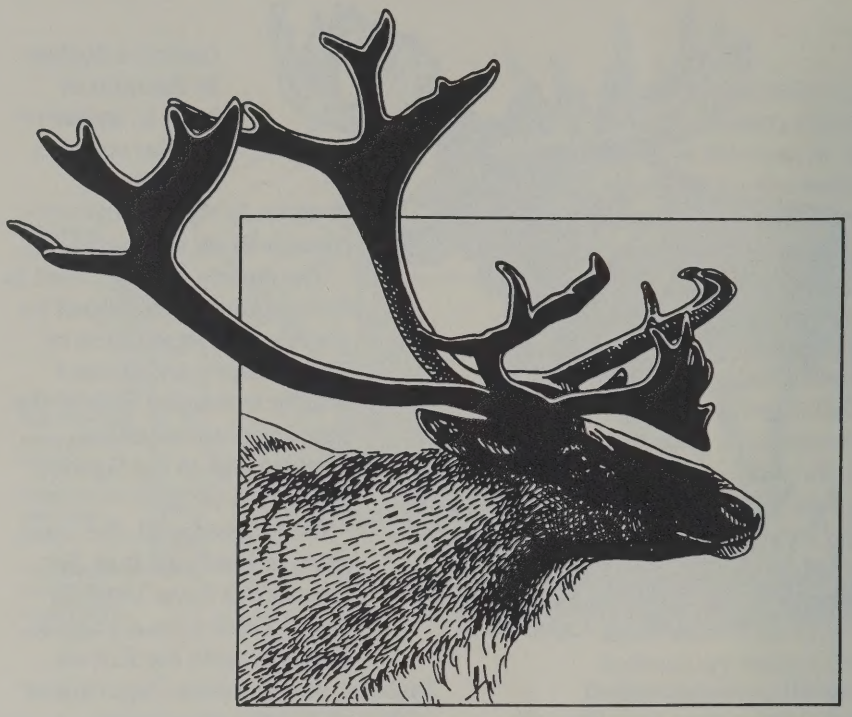


Randi Jandt

Anne Morkill, wildlife biologist with BLM's Kobuk district, coordinated the recent survey of moose populations in the Squirrel River area.

We're hunting for solutions in Alaska

Typically the BLM manages wildlife habitat, and state government manages the animals on the public lands administered by BLM. But as usual, things are somewhat different in Alaska.



As Alaska's population has increased and technology has made residents more mobile, hunting pressure has increased on Alaska's wildlife populations. Who gets to hunt where is now one of the most controversial and hotly debated issues facing Alaskans. It is commonly known as "the subsistence issue."

Subsistence is defined in the Alaska National Interest Lands Conservation Act (ANILCA) as

> **the customary and traditional uses by rural Alaska residents of wild, renewable resources (1) for direct personal or family consumption as food, shelter, fuel, clothing, tools, or transportation; (2) for the making and selling of handicraft articles out of nonedible by-products of fish and wildlife resources taken for personal or family consumption, (3) for barter, or sharing for personal or family consumption, or (4) for customary trade.**

In other words, subsistence is a word used to describe a way of life or a lifestyle in which taking and using wild, renewable resources is an integral part. It is not to be confused with sporthunting. In general, many of the state's rural residents hunt for subsistence purposes, while most sport hunters come from urban areas.

At issue are conflicting state and federal laws. The Alaska State Constitution says that Alaska's fish and game should be available for all state residents as "common use." No one worried until the human population boomed and hunting pressure began to impact the numbers of game animals. Now who can hunt, how much, and where is on everyone's mind.

In 1978 the state legislature passed the first subsistence law, giving hunting priority to individuals who could demonstrate need. In 1980 Congress passed ANILCA which, among other things, gave preference on federal lands to subsistence hunters who live in rural Alaska. And, more importantly, it also allowed the state to maintain regulation of subsistence uses of fish and wildlife as long as its laws were consistent with ANILCA.

The state responded by passing several subsistence laws, only to have the latest one ruled unconstitutional by the state supreme court. So, with the dilemma still unresolved, the federal government reluctantly assumed wildlife management on its lands beginning July 1, 1990.

The Federal Subsistence Board now determines regulations such as eligibility, season, and bag limits for federal lands. The board is composed of the regional directors of the Fish and Wildlife Service and National Park Service, the state director of the BLM, the regional forester of the Forest Service, and the area director of the Bureau of Indian Affairs

The board bases its decisions on existing data and other information obtained from the public. Information important to making these decisions includes the status of the various wildlife populations as well as the "customary and traditional" use patterns of subsistence communities.

As part of this effort, the Bureau of Land Management this year signed a cooperative agreement with the Copper River Native Association.

Under the agreement, the Copper River Native Association will gather data from local residents of the Ahtna-region communities to supplement the existing information.

"We are primarily seeking information on the customary and traditional uses of subsistence resources," said BLM State Director

Edward Spang, who is a member of the Federal Subsistence Board. The National Park Service will also be funding similar studies on their lands in the area.

"Existing harvest information is dated, insufficient or lacking in some areas," said BLM subsistence program leader Tom Boyd. "Previous attempts at gathering information from the Ahtna Region communities have often been impaired by language and cultural differences between the participants. The Copper River Native Association can provide cross-cultural communication, direct links to traditional governing factions and can update and supplement information already collected."

The information provided by the association will also be used to identify specific areas which would benefit from the placement of boundary signs identifying public lands, aid in the development of regional land status maps, and serve as the basis for a Subsistence Education Program. Marking boundaries between federal and state lands is particularly important because regulations vary with land ownership more so than has been true in the past.

Federal regulations can also vary depending on which agency manages the land and what the land designation is. All this will be explained to the public through the education program aspect of the agreement, the details of which have yet to be worked out. Boyd feels that the agreement "can serve as a springboard for local involvement in developing subsistence regulations. If people can see how the regulations are developed, they are more likely to comply with them."

No one knows how long this situation will continue. But the hunt for solutions will continue as diligently as the hunt for caribou and moose.

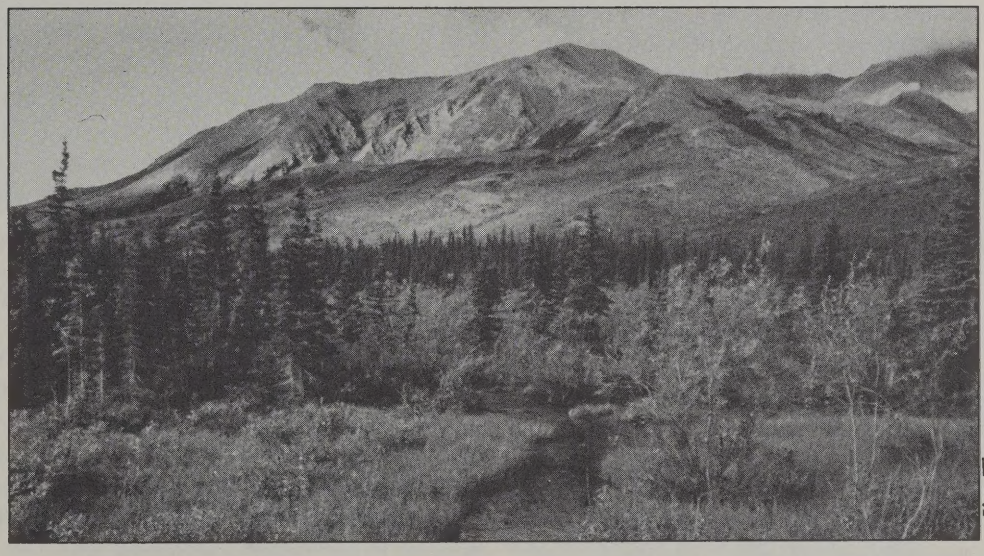
–Ed Bovy

Conveying a masterpiece

It's been said that in his later years Picasso was not allowed alone in art galleries after being caught trying to improve upon one of his masterpieces. The BLM can't improve on the beauty of Alaska but it is working to see that parcels of this land are speedily conveyed to those entitled.

BLM has wrapped up one of its most successful years in terms of acreage conveyed, giving the State of Alaska title to over 1.5 million acres in fiscal 1992. Over one million acres of land were conveyed to Alaska Native corporations and, especially important to BLM, title was passed to 789 Native allotment parcels. These federal land conveyances are part of the Alaska Statehood Act and the Alaska Native Claims Settlement Act.

Wayne Boden, BLM's Deputy State Director for Conveyances said, "This was the best year we have had since 1985, in terms of total acreage conveyed. Although the state and Native Corporations get legal title of the lands with these actions, we still have a huge workload left in surveying and patenting about 105 million acres to the state and Native corporations—an area slightly larger than California."



Jim Thomson

Boden said the conveyance process is not done, "until the land is officially surveyed and a government patent or deed is issued."

Recent figures for Native corporation transfers show BLM has issued patents to 10.36 million acres of surveyed land, and 25.1 million acres of unsurveyed lands are under Interim Conveyance. Native lands still to be surveyed and patented total 35.14 million acres.

The State has received patent to 36.8 million acres so far out of a total entitlement of 104.4 million acres, with 67.7 million acres left to be surveyed and patented.

—Janet Malone

Mapping a path to self-determination

Alaska Native groups contract to do cadastral surveys of their land

Sledge hammers pound metal monuments into the ground, marking boundary lines—lines carving through forests, passing through boulders, floating across rivers, and crossing tundra where caribou scrape for lichens. These lines mirror miles of lines of print in survey contracts and laws.

One such law, the Indian Self-Determination and Education Assistance Act of 1975 is changing federal land survey practices that date back 207 years.

Ever since the Land Ordinance of 1785, BLM, or its predecessor, the General Land Office, has been the only organization that can legally survey original land boundaries in the U.S. These surveys provide the basis for the patent and transfer of millions of acres of land from federal to private ownership in Alaska.

Now, under BLM authority and with the Indian Self-Determination Act (also known as Public Law 93-638), Alaska Native and Indian tribal organizations are able to contract to do Cadastral surveying work on Indian lands. George Oviatt, deputy state director for Cadastral Surveys in BLM's Alaska State Office, says, "What they're doing now is the same thing that private contractors have always done, but they (Alaska Natives) don't have to compete for the contract."

Originally, this law affected only two federal agencies—the Bureau of Indian Affairs and Indian Health Services—but in 1988 Congress passed amendments that extended 638 preferences to include all agencies within the Department of the Interior.

The law requires the agencies to provide services as usual, until such time as a Native organization freely chooses to contract to perform those services itself.

At that point, the agencies are required to contract with the Native organization to perform them, leading to enhanced self-determination.

Preferences and opportunities for training and employment connected with the administration of those services are given to Indians, Native or Indian organizations, and Native or Indian-owned economic enterprises.

Under the provisions of PL 93-638, the activity considered for contracting must be deemed solely for the benefit of Indians.

BLM is currently involved in surveying more than 375 million acres of public domain lands in Alaska. Some 44 million of these acres have been selected by Native interests under the Alaska Native Settlement Claims Act and are therefore open to 638 contracts.

George Oviatt, BLM deputy state director for Cadastral Surveys, says the BLM will do everything it can to help Native surveyors get off to a positive start. "With help from BLM, Native organizations will now be able to do actual field surveys within the Native land allotment process. We will prepare special instructions to be followed and will conduct field inspections and review of the final product. "

BLM currently requires on-site monitoring and inspection for all cadastral survey projects contracted to private land survey films. By working closely with contractors in the field, BLM helps correct deficiencies in survey procedures at an early stage, saving many hours of correction work and possibly making the difference between a money-making contract and a crippling loss. The final product is an acceptable plat and field notes which describe the surveyed boundaries.

Before the Bureau can enter into a contract with a tribal organization, it must be requested to do so by the Native organization to be served under the contract, in the form of a resolution by the tribal governing body. The resolution authorizes the applicant to apply for, negotiate, and contract with the BLM, subject to specific conditions in the resolution and applicable tribal laws, codes and regulations.

Theresa McPherson

A BLM land surveyor measures distances between survey points at a field camp at Tonsina.

BLM surveyor Steve Hamrick says the agency helps the tribal organization to write the proposal and complete a contract application. "The same amount of money is allotted as if BLM chose a negotiated bid procedure with a private land surveying firm. A cost estimate is developed to determine how much money would be available to a private firm, and that amount is made available to the Native group. Native groups have first right of refusal...they can look at the budget, determine their par-

ticular ability to do the job, and see if this work has any benefit to their particular Native community."

Hamrick says, "As long as the tribal organization meets BLM's requirements (using qualified personnel, performing all work according to specifications, meeting required time frames, and accomplishing the work within budget), Native organizations are free to contract for any part of the work that would benefit the tribe. This includes using local services—furnishing living quarters, catering and laundry facilities, etc."

There are risks involved. Cadastral projects are often located in remote, rugged terrain, but the real risks are financial. Although there is a reasonable profit margin for an experienced engineering company, newer Native organizations will need to carefully assess a project before committing themselves to a contract.

The PL 93-638 amendment requires the BLM to reimburse a 638 contractor for 100 percent of what the agency would normally spend on the project, including indirect costs, an amount normally between 20 and 40 percent of the project.

All Native surveys scheduled in Fiscal Year 93 by BLM's Patent Plan Process are expected to be done by 638 contractors. Five surveys projected for next summer are located in Chugach East, Cantwell, Kotzebue, Tanana and Chalkyitsik. The estimated cost is $3,850,000, which includes indirect costs of $1.2 to $1.3 million.

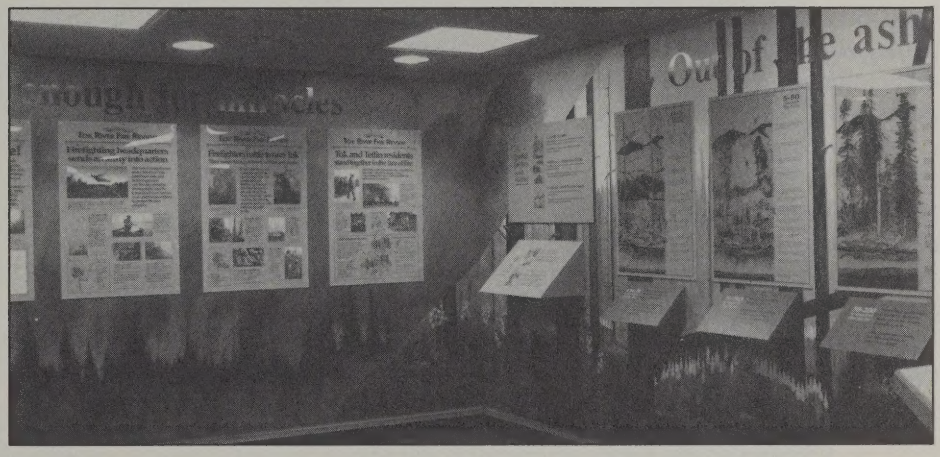
There are three ways a 638 contract may be refused: if the service to be rendered to the Native/Indian beneficiaries of the particular contract will not be satisfactory, if adequate protection of trust resources is not assured, or if the proposed project or function to be contracted for cannot be properly completed or maintained.

BLM has already downsized its cadastral crew to accommodate the Native surveyors.

Ed Lewis, BLM 638 Program Coordinator, says, "Our position is to provide interested Native entities with as much assistance and information as we possibly can. Our intentions are to cooperate to the fullest extent."

—Janet Malone

BLM exhibits win national awards



Dan Gullickson

The Tok wildfire exhibit is one of the winners.

Two BLM exhibits won first place awards from The National Association for Interpretation this fall.

The Tok Fire exhibit in the Alaska Public Lands Information Center at Tok won first place for exhibits inside buildings, and the new wayside exhibits at the Arctic Circle on the Dalton Highway received first place in the category of wayside exhibits.

The Tok exhibit is a multi-panel description against a painted backdrop. It recounts the story of the Tok fire of 1990 and describes plant succession following fire.

The exhibit was funded jointly by the BLM, the United States Fish and Wildlife Service and the Alaska State Department of Natural Resources.

Sue Steinacher of BLM's Steese/White Mountains District in Fairbanks was the designer and project leader for the Tok Fire Exhibit.

When they reached the Arctic Circle on the Dalton Highway this summer, thousands of visitors stopped to have their pictures taken in front of the circumpolar map at the wayside exhibit. This exhibit was designed by BLM interpretive Specialist Marin Kuizenga, with engineering assistance from Roger Evans. Text was written by Marin, Jan Burris and Gene Ervine, all with BLM. Funding for the Arctic exhibit was provided through BLM Project 92 monies.

The National Association for Interpretation is made up of professional interpreters from federal agencies, state and local parks, and private museums, nature centers, aquariums, etc.

—Jane Mangus

Computing A Career

by Ella V. Wright

Jennifer Skinner is 18, a Service High School computer science major—and an Apple Macintosh computer wizard. At least that's the way her fellow students at the Martin Luther King Career Center describe her. This early bird got the Apple "worm" back in the fourth grade.

Every weekday at 7:30, Skinner goes in to configure and upgrade personal computers at BLM-Alaska's Anchorage District. She works three hours, then dashes off to school.

Several students now participate in the BLM-Anchorage School District Business Partnership Program. BLM State Director Ed Spang signed the Cooperative Education agreement OK'ing the arrangement in April.

Bob Moore, who coordinated the effort for BLM, tried to match the students' studies and skills with appropriate tasks. They work at repairing small engines, learning the procurement process and how to operate office machines, moving office furniture, filing, doing word processing and helping with computers. Moore estimates these students will contribute 200 hours of volunteer time to BLM during the 1992-'93 school year. In turn, each student will earn one and a half credits a semester and gain on-the-job experience.

Danielle Allen

High school and Career Center student Jennifer Skinner hopes her work experience at BLM will help her to become a computer systems operator.

Skinner aspires to become a computer systems operator. IBM computers at the Anchorage District office are fast becoming her speciality. Computer programmer/analyst, Don Lofton says, "She really learns quickly." Two days after shadowing Lofton in his work she was assigned to set up tasks included installing hardware and compatible software, putting in video cards, and changing "jumpers." No, these are not Mexican jumping beans, but tiny plastic connectors for electronic circuits.

Skinner gets excited just talking about computers. "It's fun. I like the projects because I love computers—the technology."

After Skinner graduates in June, she plans to attend college. And hopefully her experience with BLM will help qualify her in the computer technology field.

Rental Fees Replace Assessment Work for Unpatented Mining Claims

The Department of Interior's 1993 Appropriations Act, signed October 5, 1992 and in effect for the next two years, requires holders of unpatented mining claims to pay the federal government a new rental fee of $100 per claim per year.

The amendment changes the old requirement that miners perform a minimum of $100 worth of work per year to develop their claim. Beginning September 1, 1992 and expiring August 31, 1994, the fees will be deposited into the general treasury, and a portion will be returned to the BLM to fund the agency's mining law administration program.

To hold their claims for the next two years, claimants must pay the BLM the $100 per claim rental on or before August 31, 1993, for the year ending September 1, 1993, and an advance rental of $100 per claim on or before August 31, 1993, for the year beginning September 1, 1993. An unpaid rental fee constitutes statutory abandonment, voiding the claim.

For each federal mining claim, a certificate of location, a $10 service fee and a $100 rental fee per year must be filed at the appropriate BLM state office .

There are more than a million mining claims of record on federal lands, with 24,000 of these in Alaska.

—Janet Malone

Wildfires spare Alaska in 1992

Spring came late and winter came early. In between, there was scarcely time for a fire season in Alaska.

The brief span of Alaska's 1992 fire season is reflected in the fire statistics. Wildfires burned just over 150,000 acres in Alaska this year. That's a far cry from 1991, when fires burned nearly 1.7 million acres. It's even farther from 1990, one of the most active fire years on record, when fires swept over nearly 3.2 million acres.

Number of acres burned and hundreds of other statistics are included in an annual report prepared by Don Barry and Mary Lynch, intelligence officers for the Alaska Interagency Fire Coordination Center at Fort Wainwright. The center coordinates fire-fighting efforts by the BLM's Alaska Fire Service, the State of Alaska and other agencies on federal (including military), state and private land.

Only three fires in 1992 exceeded 25,000 acres. The largest one burned 48,000 acres near the Canadian border east of Tok. In 1991, four fires burned more than 100,000 acres and the largest burned 250,000 acres.

Only 153,000 gallons of retardant were used in 1992, 70 percent below the average use during the last 10 years.

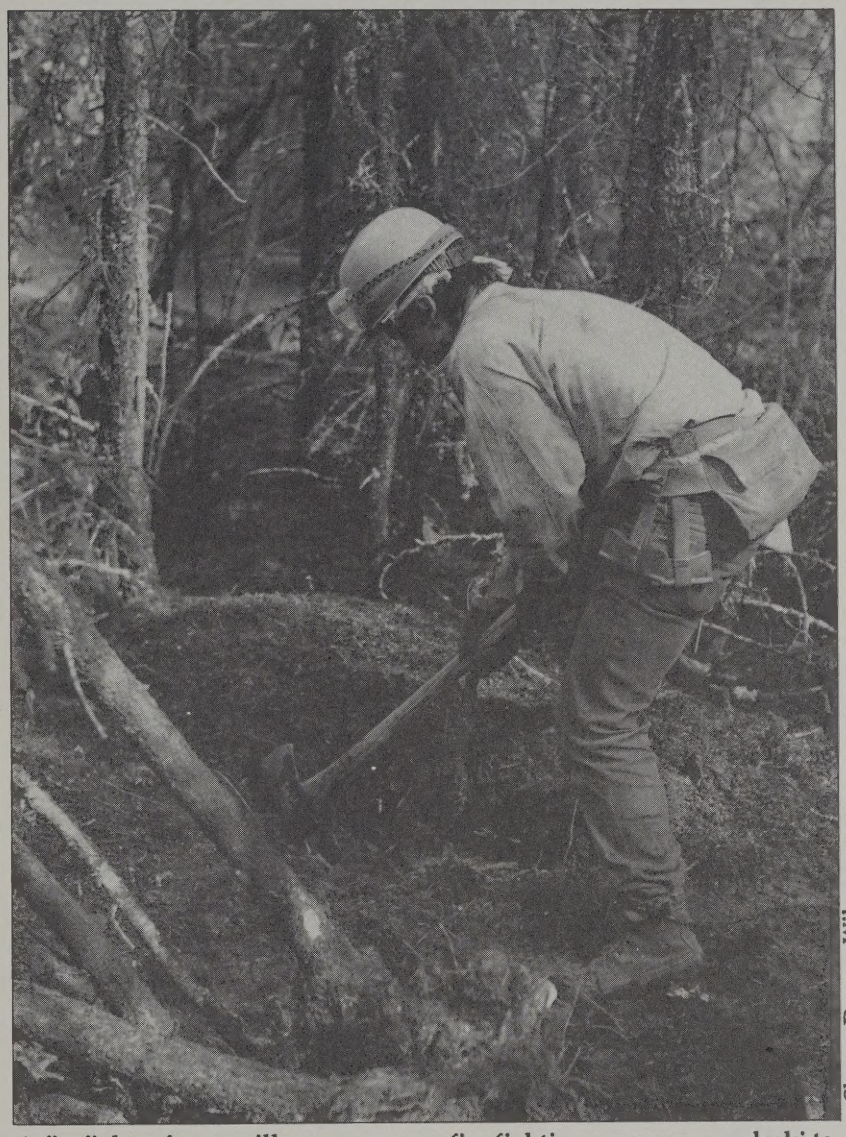
AFS airplanes carried 758,000 pounds of cargo, including nearly 49,000 pounds dropped by parachute. In 1991, AFS planes carried nearly 3 million pounds of cargo and dropped 137,000 pounds by parachute.

The slow fire season was reflected in the wages paid to emergency firefighter crews. AIFCC maintains a list of 73 EFF crews from more than 50 villages and hires them on a rotational basis when they are needed for fires. Wages paid to the 16-member crews are a major source of income in the villages. EFF wages totaled $1.4 million in 1992, according to the report, compared to more than $9 million in 1991.

For the first time in many years, no Lower 48 personnel filled fire suppression or support positions in Alaska. However, 190 Alaskans responded to emergencies in the Lower 48. Most fought fires in California, but 21 AFS personnel were sent to the Everglades National Park in Florida to help emergency efforts in the wake of Hurricane Andrew.

Although the number of acres burned in 1992 was low, it was by no means the lowest. In 1989, fewer than 69,000 acres burned, and in 1968, fewer than 8,000 acres.

—Andy Williams



Sharon Durgan Wilson

A firefighter from a village emergency fire fighting crew uses a pulaski to make a fire break.

frontier flashes

At its annual convention in November, the **Alaska Federation of Natives** passed a resolution pledging to support BLM funding requests for **support of the Resource Apprenticeship Program for Students**, resolving to encourage corporations and communities to help support and expand the program, and urging the public and private natural resource management agencies to provide economic and educational opportunities through the program.

The BLM Anchorage District will release its **final Campbell Creek Environmental Education Center Development Plan and Environmental Assessment** this month. The plan calls for the development of an environmental education center with an overnight capacity of 80 people to be built at the north end of BLM's Campbell Tract in Anchorage. BLM is currently negotiating design proposals for the project and construction is slated for 1994. For more information and copies of the plan call Kathy Liska at (907) 267-1225.

The BLM and the State of Alaska Department of Natural Resources, Office of History and Archaeology announced a five-year cooperative agreement for an **inventory of cultural resources along the Iditarod National Historic Trail (INHT)**. BLM will provide funding, guidance and technical review for the project. In turn, State of Alaska historians will locate and assess historic resources along the INHT, research the trail's history, record oral histories and develop information for trail sites for the public.

BLM employees helped spiff up a trail following musher Tim Osmar's winning run of the fourth annual **Copper Basin 300 sled dog race.** Outdoor Recreation Planner Larry Kajdan led District employees John Rego and Kurt Sorenson on a post-race inspection of a trail segment crossing BLM lands between Sourdough Campground and Meiers Lake. The crew removed race trail markers along their route, as well as collecting dog booties and debris. Race organizers publicly thanked BLM for its efforts.

Two Alaskans have been appointed to serve on **BLM's National Public Lands Advisory Council.** Rosemarie Maher, of Fairbanks, is Chairman of the Board of Directors of Doyon, a private landholding company. Charles Hawley is a mining geologist and developer, and president of Hawley Resources Group, Inc. The 21-member council advises the Secretary of the Interior and the Director of the BLM on national-level policies and programs for public lands and resources under BLM jurisdiction. BLM manages more than 270 million acres of land in 11 western states and Alaska. The Alaskans were among seven new members recently appointed by former Secretary Manuel Lujan.

Bureau of Land Management

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Asst. editor: Janet Malone
Pasteup: Janet Malone

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